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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/929,075 | 08/15/2001 | Helmut Auweter | 51705 | 8919 |

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| EXAMINER |
|---|
| WANG, SHENGJUN |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1617 | 7 |

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. 09/929,075 | Applicant(s) AUWETER ET AL. | |
|---|---|---|---|
| | Examin r Shengjun Wang | Art Unit 1617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *14 January 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *11-18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

1. Claims 11-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6 submitted January 14, 2003.

2. Applicant's election with traverse of invention group I, claims 1-10 and 19 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the method claims herein cannot be drawn to a particulate composition with only one active compound as stated by the examiner. This is not found persuasive because the claimed method comprising a step of drying an aqueous suspension. The two active compounds are the materials processed by the method. Such method is obviously being useful for one active compound composition.

The requirement is still deemed proper and is therefore made FINAL.

### *Claim Rejections 35 U.S.C. 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 6 recite "only one *representative* of the carotenoid class of substance." The meaning of "representative" here is not clear. It is not clear whether "representative" mean any member of carotenoid substance in any amount, or some particular compounds in particular amount. The claim is indefinite as to the meaning of "representative".

***Claim Rejections 35 U.S.C. 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akamatsu et al. (US 5,780,056, IDS), in view of Khachik (US 5,382,714), Ausick et al. (5,648,564) and Horn et al. (US 4,522,743, equivalent to EP 065,193)

8. Akamatsu et al. teach microcapsules of multi-core structure comprising natural carotenoid for additive agents fro food and pharmaceuticals. The core particles contain the natural carotenoid, and have a particle size of 0.01 to 5 um. The microcapsules have mean particles size of 50 to 3,000 um. See, particularly, col. 1, lines 6-16, lines 35-42, col. 2, lines 43-58, col. 4, line 45 to col. 5, line 23. The particular example of natural carotenoid is palm oil carotenoid comprising beta-carotene and lycopene. See, col. 1, lines 35-42. Akamatsu et al. also teaches that various method s could be used for obtaining the particles, and the method of preparing the particle is not critical. See, col. 5, line 8 to col. 6, lines 21. The multi-core microcapsules provide protection of the carotenoid from oxidation. See the abstract.

9. Akamatsu et al. do not teach expressly that at least two core of the multi-core structure have different chemical composition, or only one representative in the core, or lutein is one of the carotenoid.

10. However, Khachik, and Ausich et al. teaches that lutein is particularly useful in nutritional, food composition. See, particularly, the abstract, and the claims. Horn teaches method of preparing finely divided pulverulent carotenoid or retinoid composition in which the carotinoid or retinoid essentially has a particle size of less than 0.5 micron. See, particularly, the abstract, and the claims.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to further incorporated lutein fine particle into the multi-core microcapsules.

A person of ordinary skill in the art would have been motivated to further incorporated lutein fine particle into the multi-core microcapsules because lutein is known to be similarly useful as a nutritional ingredients. It is prima facie obvious to combine two compositions each of which is taught in the prior art to be useful for same purpose in order to form third composition that is to be used for very the same purpose; idea of combining them flows logically from their having been individually taught in prior art; thus, the claimed invention which is a combination of two known nutritiional ingredients sets forth prima facie obvious subject matter. See In re Kerkhoven, 205 USPQ 1069. One of ordinary skill in the art would have been reasonably expected to be able to make the finely divided particles since such method is known in the art. It is also obvious to make each and every carotenoid in the microcapsules into finely divided particles separately before incorporated them into the multi-core structure because method of making such finely divided particle is known in the art. Further, making active ingredients in one core, or in separated cores is an obvious variation, absent evidence to the contrary. Finally, the optimization of the amount of each and every active ingredient in a composition is considered

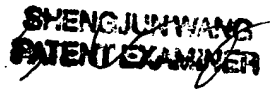
within the skill of artisan, absent evidence to the contrary. The employment of the multicore microcapsules comprising carotinoid in food, pharmaceticals, or nutritional products is obvious since such microcapsules are known to be useful for food, pharmaceticals, or nutritional products.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (703) 308-4554. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (703) 305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Patent Examiner




Shengjun Wang

April 4, 2003